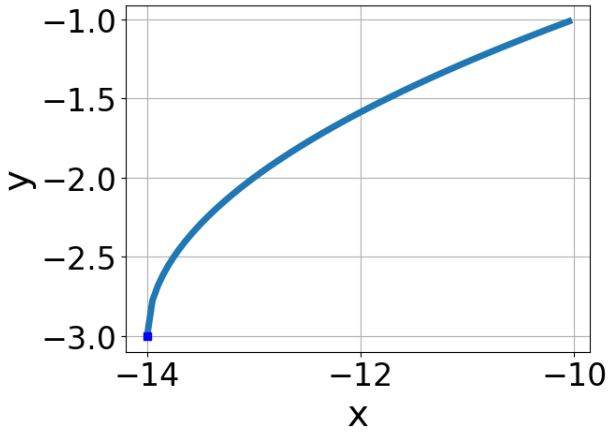
1. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x+14} - 3$

B. $f(x) = \sqrt[3]{x-14} - 3$

C. $f(x) = \sqrt[3]{x+14} - 3$

D. $f(x) = -\sqrt[3]{x-14} - 3$

E. None of the above

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2. What is the domain of the function below?

$$f(x) = \sqrt[5]{5x-9}$$

A. The domain is $[a, \infty)$, where $a \in [1.8, 5.8]$

B. $(-\infty, \infty)$

C. The domain is $(-\infty, a]$, where $a \in [1.21, 3.04]$

D. The domain is $(-\infty, a]$, where $a \in [-0.45, 1.48]$

E. The domain is $[a, \infty)$, where $a \in [-0.44, 1.56]$

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3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-54x^2 - 12} - \sqrt{-66x} = 0$$

A. $x \in [0.43, 1.19]$

B. All solutions lead to invalid or complex values in the equation.

C. $x_1 \in [-1.42, -0.22]$ and $x_2 \in [-7, -0]$

D. $x \in [-0.1, 0.86]$

E. $x_1 \in [-0.1, 0.86]$ and $x_2 \in [1, 3]$

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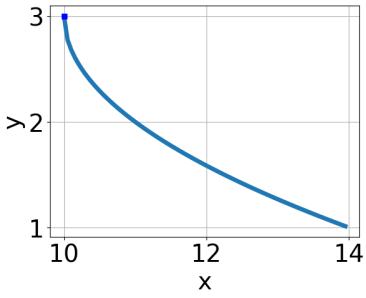
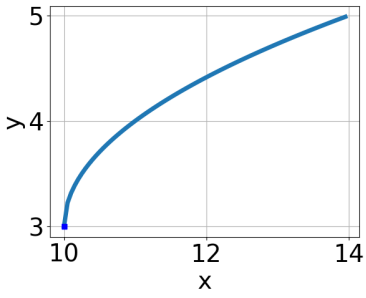
4. Choose the graph of the equation below.

$$f(x) = \sqrt{x - 10} + 3$$

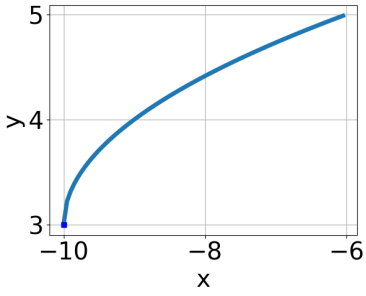
A.



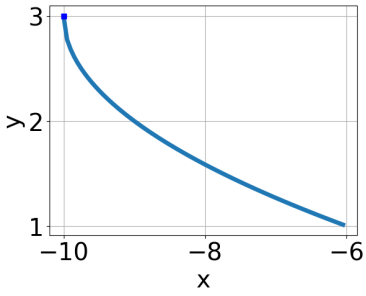
C.



B.



D.



E. None of the above.

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5. What is the domain of the function below?

$$f(x) = \sqrt[3]{8x + 6}$$

A. The domain is $[a, \infty)$, where $a \in [-0.88, -0.52]$

B. $(-\infty, \infty)$

C. The domain is $(-\infty, a]$, where $a \in [-1.02, 0.07]$

D. The domain is $(-\infty, a]$, where $a \in [-1.55, -1.18]$

E. The domain is $[a, \infty)$, where $a \in [-1.5, -1.13]$

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6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{9x-7} - \sqrt{2x-4} = 0$$

A. All solutions lead to invalid or complex values in the equation.

B. $x_1 \in [0.24, 0.69]$ and $x_2 \in [-0.9, 1.1]$

C. $x_1 \in [0.46, 1.06]$ and $x_2 \in [1.4, 3.6]$

D. $x \in [0.24, 0.69]$

E. $x \in [1.33, 1.59]$

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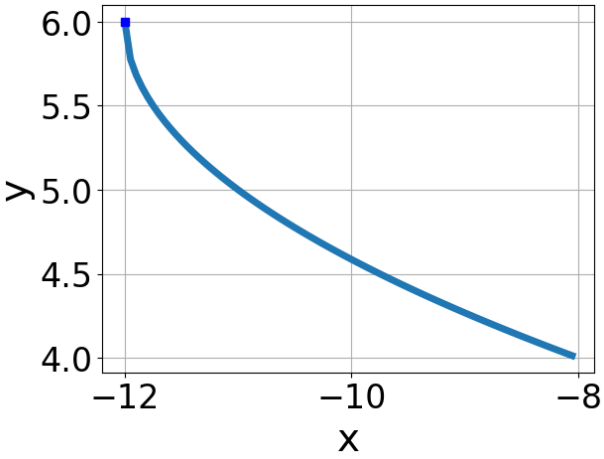
7. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x+12} + 6$

B. $f(x) = \sqrt[3]{x-12} + 6$

C. $f(x) = -\sqrt[3]{x-12} + 6$

D. $f(x) = \sqrt[3]{x+12} + 6$

E. None of the above

8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{63x^2 + 10} - \sqrt{59x} = 0$$

A. $x_1 \in [0.13, 0.45]$ and $x_2 \in [0.45, 1.13]$

B. $x_1 \in [-1.01, -0.69]$ and $x_2 \in [-0.77, -0.07]$

C. $x \in [0.64, 1.16]$

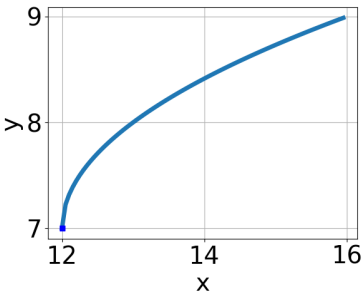
D. $x \in [0.13, 0.45]$

E. All solutions lead to invalid or complex values in the equation.

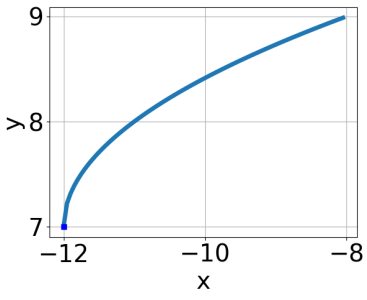
9. Choose the graph of the equation below.

$$f(x) = -\sqrt{x - 12} + 7$$

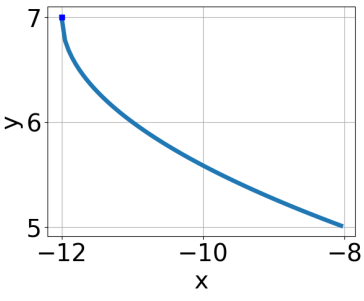
A.



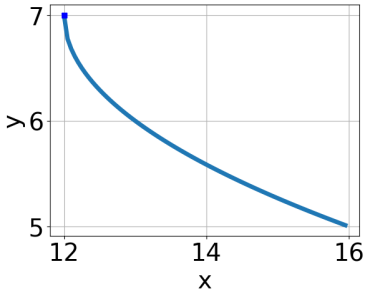
C.



B.



D.



E. None of the above.

10. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-9x-4}-\sqrt{-3x-5}=0$$

A. All solutions lead to invalid or complex values in the equation.

B. $x \in [-0.05, 0.3]$

C. $x_1 \in [-1.93, -1.61]$ and $x_2 \in [-1.59, -0.14]$

D. $x_1 \in [-0.71, -0.36]$ and $x_2 \in [0.11, 0.78]$

E. $x \in [-1.61, -1.25]$